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The Effects of Utilizing English Language Courseware on Secondary School Students' Performance in Iran

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Abstract

The purpose of this study was to determine the effects of Rosetta stone's English Language Courseware (RSELC) on third grade students' performance in public secondary school in Iran. More specifically, this study also aimed to evaluate students' perception about the usefulness of language courseware. This study utilized a quasi-experimental method using only post-test design which consists of two groups. Control group was taught using traditional instruction and experimental group was taught using educational software, namely RSELC. Both groups consist of 31Iranin secondary school students. In addition, A questionnaire was used which developed by researchers. Quantitative analyses revealed that there was significant difference between the groups on the overall performance in favour of experimental group. Based on obtained results, the current study concluded RSELC that was an effective tool for teaching and learning English language at the third grade secondary school in Iran.

Keywords: *Rosetta stone's English Language Courseware RSELC, Computer Assisted Language Learning, Secondary School Students, Students' Grammar Learning Performance*

1. Introduction

Information Communication Technology (ICT) as one of the technology innovation has been integrated in schools to help students, especially school students, getting better understanding of teaching materials. ICT has provided students with completely different ways of practicing and developing individual and social activities (Somekh, 2008). Technology can assist teachers in the classroom during teaching and the learning process. Among the technologies that can be used in during the classroom is multimedia courseware. As one of ICT productions and innovations, computer courseware can improve the students' performances (Hall, 1998). Computers in English Language Learning have been viewed through Computer Assisted Language learning or Computer Assisted Instruction because students use the computers to develop and practice their English. Computer Assisted Language Learning (CALL) is related to the use of computers technology for language teaching and learning. In language learning, CALL carries two important features, which are interactive learning and individual learning (Schwienhorst, 2008). CALL materials are used in teaching to facilitate the language learning process. CALL can also act as remedial practices to help learners with different language proficiency (Wang, 2001). Meanwhile, multimedia language courseware provides digital interactive environment that allows students to practice their language skills based on their needs and interest. This flexible space allows individual learning through whereby students can control their learning anywhere and anytime (Chen, Hsieh, & Kinshuk, 2008).

Comprehensive electronic tools programs can provide effective interaction which helps teaching and learning grammar in much quicker, easier, and more convenient ways in comparison with the traditional ones (Hegelheimer & Fisher, 2006). According to Chapelle (1998), multimedia CALL could (a) make linguistic characteristic clear; (b) help learners understand semantic and syntactic grammar; (c) enable learners to notice their errors and correct them; (d) make the language interactions modifiable; and (e) engage learners in learning with good interaction task designed. In other word, technology supports their needs and provides the best help to meet their goals achievement (Mayer & Sims, 1994). Practicing in a wide variety of grammatical forms and receiving corrective feedback can improve students' learning. Such an interactive environment allows a learner to respond to feedback individually, to learn independently, and to think critically (Ellis, 2006; Wang, 2001). At this stage, a teacher should be acted as a facilitator during teaching

and learning processes.

CALL can help learners with different levels of language proficiency. Teaching and learning a language via pictures, sound, and videos can create a real and authentic learning environment and students are able to react and use grammar in native like activities through a virtual environment. There are many studies which have been confirmed the advantages using computer during English language classroom. For instance, Borg and Burn (2008), indicated that by using computers, students can discover grammar structure among the variety of practices with immediate feedback. They noted that computers allow individuals to construct and develop their own knowledge. Another study on students' use of CALL materials was conducted by Schwienhorst (2008) revealed that computers facilitate the language learning process. This technology environment creates a student-centered context accelerating learning and promoting self-paced learning. Moreover, the findings of his study showed that CALL can be used to reinforce learning in students and to enhance remedial practices. In addition, the study was carried out by Kumar and Tammelin (2008) found that the students were interested in seeking an answer to the question whether they could use the grammar in daily activities. As a matter of fact, multimedia language courseware could combine listening and watching to involve students participating in a real world condition actively. This also would make students feels more enjoyable during the English class. This is proven by Greany's study (2007) which investigated students' perceptions on language learning in a technological environment. The results of the study indicated that 79% of the students believed that multimedia CD-ROM interaction enhanced their understanding of the lesson contents and they enjoyed the learning with high engagement. Using language teaching software can also improve learners' ability in all four language skills. In a more recently study it was investigated on the students' achievement in reading and listening comprehension after taking online course (Sheu, 2011). The study found a significant progress in the mean of posttest scores. Nevertheless, progress in the reading test was not as significant as the listening test. Additionally, The Sheu's study showed that online course not only did help poor students improve their test performance in English language, but also enhanced their self-efficiency in learning strategies.

In more recent years, many researchers have also become interested in conducting studies to determine the effectiveness of using computers in teaching and learning English language and to compare it with the traditional method in which textbooks are used. For example, Nabah (2012) investigating the impact of using computer assisted grammar teaching on the performance of Jordanian pupils studying English as a foreign language. The results showed that students who studied the passive voice via computer outperformed the students who studied the same grammatical item through the traditional method. Another recent study, was investigated the effect of computer-assisted language instruction on Saudi students learning of English at King Saud University (Al-Mansour & Al-Shorman, 2011). The findings of the study indicated that using computer-assisted English language instruction alongside the traditional method had a positive effect on the experimental group students' achievement. A study was carried out by (Hussain, Iqbal, & Akhtar, 2010) to determine the effectiveness of technology based learning environment on students' achievement in English as a foreign language. The study concluded that students' performed better when taught in technology based learning environment and it helped them to develop the abilities of knowledge, comprehension and application.

Following the studies have been done, Arikan and Taraf (2011) also was analyzed the effects of authentic animated teaching grammar and vocabularies to the young Turkish students using pre and post-test experimental design. The findings highlighted that at the beginning, both groups performed poorly in the test but towards the end the experimental group outperformed compared to the control group. This finding, therefore, shows that the teacher should use oral and visual tools as supplementary materials to teach grammar and also to present problem solving lessons with a variety of examples. Furthermore, in another experimental research conducted by Torlakovic and Deugo, (2004), they investigated whether or not CALL systems could facilitate teaching and learning grammar. They found that the treatment group significantly outperformed than the control group in learning adverbs on the post-tests. In addition, the negative feedback in control group affected the student's lower performance.

The studies discussed above have been highlighted utilizing language courseware in order to improve students' performance. Therefore, grammar teaching needs to be supported by meaningful activities and tasks, which provide the opportunities for practice and use. According to Mahdizadeh (2006) students' failing in English grammar test have been considered as a major problem in Iranian secondary schools which emerged from the English textbooks. Lack of interesting texts, pictures, and various practices in textbooks and complicated structure by limited time in English course make difficulties in teaching and learning in traditional teaching system. As a result, the students' achievement decreased in learning English grammar. In this respect, on the one hand, regarding existed issues in learning grammar through traditional method, on the other hand, the benefits of integrating educational technologies, the Department of Educational Technology in Iran has noted that the textbooks will be replaced by the courseware in order to bring a deep

understanding and supplementary learning. Therefore, this study attempted to find out the advantages of integration computer in education, particularly in teaching English grammar course.

2. Objective of the Study

In order to address the problems, this study was designed to determine the effects of using the RSELC on Iranian secondary school students' performances in learning English grammar compared to the traditional method. The students' performance assessed based on the overall performance, verbs, subjects, and objects, adjectives, and making a correct sentence. More specifically, this study aimed to evaluate students' perception about the usefulness of language courseware.

3. Hypotheses

In order to meet these objectives the following null hypotheses were formulated to be tested by researchers:

H_{o1}: There is no significant difference between the performances on verb position among the students who used the RSELC compared to the traditional method.

H_{o2}: There is no significant difference between the performances on noun as a subject position among the students who used the RSELC compared to the traditional method.

H_{o3}: There is no significant difference between the performances on noun as an object position among the students who used the RSELC compared to the traditional method.

H_{o4}: There is no significant difference between the performances on adjective position among students who used the RSELC compared to the traditional method.

H_{o5}: There is no significant difference between the performances on making a sentence position among the students who used the RSELC compared to the traditional method.

H_{o6}: There is no significant difference between the performances on overall performance among the students who used the RSELC compared to the traditional method.

4. Methodology

This study was employed a quasi-experimental post-test non-equivalent group design. It was carried out between students of experimental group and control group in four weeks. In the experimental group the RSELC was used while the control group conducted via the normal practice of teaching. Moreover, for the experimental group, they are required to fill in a questionnaire to evaluate their perception about the usefulness of the RSELC in English grammar performance. This questionnaire consists in five items and measured by five point Likert scale (1=never, 2=seldom, 3=sometimes, 4=usually, and 5=always)

4.1 Participants

The sample of the study was taken from the third grade secondary school students in Iran. The sample was drawn 62 female students from two classes which consist of 31 students in the control group and in the experimental group. The age of the female students which participated in this study ranged between 14 and 15 years old. In this study, gender is not the matter taken into account, in fact, the context of the study does not allow a female teacher attends at male school.

4.2 Procedure

This study took place in four weeks, which consists of four sessions per week. Each session took two hours controlled by the researcher. The duration of study was enough because students in both groups just practiced in particular topics. The researcher acted as a mentor for the students how to practice in multimedia environment. Meanwhile, one teacher was chosen to teach the same topics of grammar to control group and experimental group. There were no differences in terms of time and lesson's objectives between two groups.

This study examined the dependent variable i.e. the students' performance in five target topics by the students' score in an English grammar in the post-test only. The panel expert's from the school and Iranian department of

education confirmed the English grammar test. The students identified characteristics of verbs, subjects, and objects, adjectives, and make a correct sentence in grammatical assessment with 20 questions and each topic had four questions. The data were analyzed using Statistic Package of Social Science (SPSS).

After accomplishing the four weeks intervention using RSELC and traditional method, a grammar test was given to both groups to determine their progress. Finally, students in experimental group were answered to perceived usefulness questionnaire to determine the effects of RSELC in grammar learning performance.

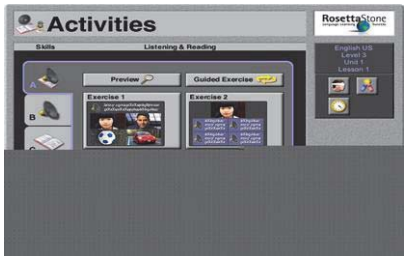
4.3 Instrument of study

This study used RSELC as an instrument. The RSELC is a multimedia program language courseware that has been designed based on the curriculum plan and students' interests. The RSELC can make learning language easy and effective. According to Graff (2006) and Almekhlafi (2006), the RSELC has a significant effect on students' achievement in learning English language. It approaches to instructional goals including:

1. Students learn by experiencing the world around them.
2. The methods let the learner progress naturally from words to sentence.
3. Step by step learners will gain the confidence to speak on their own.
4. Review of exercise helps to learn in long time memory.
5. Immediate feedback helps learning progresses.
6. Puzzle solving keeps the learner's motivation with feeling of accomplishment.

The activities in RSELC include four types of practices for four language skills such as spoken texts, writing texts, pictures, and combination of all (Figure 1). The facilities of RSELC make it easy to use for the learner. In every page, students are able to see how many of their answers are correct or how many are wrong. In addition, they can consider time in each exercise and they are able to control their time of learning. They do practices by their own pace of progress and little by little they can do faster.

Figure1 : The Main Menu of RSELC

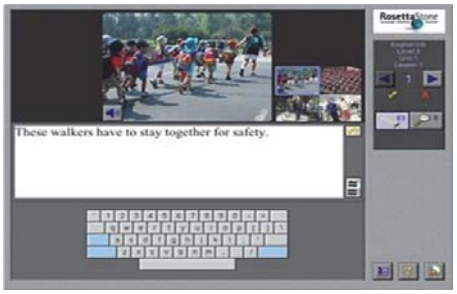


The students can use pictures, sound, and texts which are together. The user listens to the prompt and looks at the picture that is represented. Then he or she clicks the correct tiles (Figure 2). If the answer is not correct, the incorrect tile will be highlighted and the user can try it again. In this way, the user is able to repeat, the practices over and over until he or she ensures that he or she understands the matter. Such an interactive environment allows every individual to do all possibilities and the correct feedback can help them to learn independently.

Figure 2 : Reading and Listening Skills in RSELC

Every individual can listen to the prompt and look at the picture. Then type the phrase by using computers keyboard or on the screen keyboard (Figure 3). The user can manipulate the sentence to learn the position of each component of the sentence. When the users cannot make a correct sentence, the software gives them the feedback immediately. The wrong word becomes gray color and the users try the other possibility.

Figure 3: Writing Skill in RSELC



5. Findings

The discussion on the findings was based on the five hypotheses created earlier. The statistical analysis used in the study is the independent sample t-test to examine the achievement scores based on two different types of evaluations. The results are as shown in table 1.

Table 1: Independent sample t-test results of students' performance between two groups

Hypotheses	Groups	N	Mean	SD		T	df	Sig
H_{o1} : Verb	CG	31	2.61	1.40	0.252			
						2.082	60	0.042
	EG	31	3.25	0.99	0.179			
H_{o2} : Nouns position as subject	CG	31	2.64	0.91	0.164			
						2.79	60	0.00
	EG	31	3.29	0.90	0.161			
H_{o3} : Nouns position as an object	CG	31	2.80	1.24	0.224			
						2.310	60	0.024
	EG	31	3.45	0.92	0.166			
H_{o4} : adjective	CG	31	2.73	1.47	0.264			
						2.166	60	.036
	EG	31	3.56	0.76	0.137			
H_{o5} : Making Sentences	CG	31	2.69	1.38	0.249			
						2.491	55.40	0.016
	EG	31	3.46	1.03	0.185			
H_{o6} : Overall Performance	CG	31	2.73	1.10	0.993			
						2.778	50.16	.008
	EG	31	3.39	0.68	0.622			

The first component measured for students' performance in their post-test is on verb position in grammar. The results obtained from the independent sample t-test indicated that there is a significance difference in the achievement scores on verb position in grammar between the control group (M=2.61, SD=1.40) and the experimental group (M=3.25, SD=0.99; *t* (60) =2.082, *p*=.04<.05) and Ho1 rejected. According to Cohen, *et al*. (2007) the effect size of the mean was moderate (eta squared =0.067). The findings showed that the students used RSELC learned the character of "verb" in grammar better than that of the traditional group.

For the second component, analysis indicates that there is significant difference on the understanding the "subject" as a main component of a sentence between the control group (M=2.64, SD=0.91) and the experimental group (M=3.29,

SD=0.90; *t* (60) = 2.79, *p*= .00 <.05) and the magnitude of the means was small (eta squared = 0.01). This means that the hypotheses rejected. This result indicates that although student using RSELC performed better to identify the characteristic of "subject" compared to those learning it using traditional method. However, there was no large difference between the two groups.

A review of the independent t-test shows that there is significance difference in the students' performance on recognizing "object" position in English grammar comparing with the traditional method (M=2.80, SD=1.24) and the students who took part in language courseware method (M=3.45, SD=0.92; *t* (60)= 2.310 , *p*=.02 <.05). The magnitude of the differences in the means was moderate (eta squared = 0.08). The findings indicated that RSELC had reasonable effects on the students' achievement in identifying characteristic of "object" in grammar.

The fourth hypothesis is to identify the significant difference based on grammar test in recognizing "adjective" as a component of a sentence. It indicates that there is significant difference between the control group (M= 2.73, SD=1.47) and the experimental group (M= 3.56, SD=0.76; *t* (60) = 2.16, *p*=.03 <.05. In addition, according to Cohen, *et al.* (2007) eta squared = 0.07 shows that the degree of the difference in the mean was moderate and the hypotheses rejected. This result suggests that the RSELC produced a significant positive effect on the students' learning of "adjective" topic compared with the traditional method.

The outcomes of Table 1 indicates that there is significant difference in the achievement scores of "making a sentence" topic between the two groups that is the control group with (M=2.69, SD=1.38) and the experimental group with (M=3.46, SD=1.03; *t* (60) = 2.49, p<.05) and the hypotheses 5 (H_{05}) rejected. According to Cohen, *et al.* (2007), the size of mean difference was moderate (eta squared = 0.09). In conclusion, when the students learn characteristic of every component of the sentence, they will be make a correct sentence.

Overall performance in this study is important to determine whether the use of RSELC would really help students' to achieved better scores compared to traditional method. Based on the independent sample t-test, there is a significant difference on the students' performance as overall score between the control group (M=2.73, SD=1.10) and the experimental group (M=3.39, SD=0.68; *t* (60) = 2.77, *p*= .00<.05). Although there is significant difference between the two groups, but it was suggested by Cohen et. al (2007) that the size of the differences in the mean was small. This finding also indicates that the last hypotheses also rejected. The students in the experimental group could control their learning by interactive courseware. They could repeatedly do the tasks until they made sure that they learned the content.

The next section of the findings is to identify students' perception towards the use of RSELC among the experiment group. In this study, the usefulness refers to how the respondents felt that learning using this courseware could improve their learning grammar performance, productivities and accomplish tasks quickly. Mean and standard deviation for this are as shown in Table 2.

Table 2: Mean and Standard Deviation of Students Perception of Usefulness RSELC

	N	Mean	SD
Using RSELC improve my performance in learning English grammar	31	4.00	1.00
The RSELC enable me to accomplish tasks more quickly	31	3.96	1.07
Using RSELC enhance my effectiveness on learning English grammar	31	4.00	0.96
Using RSELC increased my productivities in my learning English grammar	31	4.09	0.83
Overall I find RSELC useful in my learning English grammar	31	4.25	0.92
Overall	31	4.06	0.95

Overall mean for the five items are 4.06 (SD = 0.95) which indicates that respondents felt that learning grammar by using RSELC are useful. Most of the mean value for each item is strongly high (above 4.0). Respondents gave a high score by saying multimedia courseware could improve their learning English course (Mean = 4.00, SD = 1.00) and increased their productivity in class (Mean = 4.09, SD = 0.83). In overall students' perception about RSELC with (M=4.06, SD=0.95) indicate that RSELC has a positive effect on their learning English.

6. Discussion

Computer based instructional activities has a potential to students achievement in language skills and plays role of stimulus in language learning. CALL increases students' participation in instructional activities more than regular traditional classroom (Blake, 2000). In English language class, interaction is an essential factor in learning outcomes.

However, interaction in the traditional classroom was limited to one way, which is from teacher to the students. Generally, in this type of class setting students wait for the teacher to get them involved in discussing questions and answers (Tubin, 2006; Zhang, 2007; Schwienhorst, 2008). The research findings from literature review revealed that computers have the potential of improving the students' performance in different language skills and play a role as stimulus in language learning. By learning English language using computer, a two way interaction between students' and the computer would make learning become more interactive and meaningful. Students would become an active learner because they need to response activities provided in it. In other words, computers has been used as a vehicles for delivering instructional materials to students sufficiently (Chen, et al, 2008; Schwienhorst, 2008).

This study investigates the effects of using the RSELC on students' learning English grammar. The results obtained from this study indicate that the multimedia courseware played an important role in enhancing the students' performance. Additionally, the outcomes of independent sample t-test indicate that there was significant difference in target topics in English grammar that involved verb, noun (subject and object), and adjective and making a correct sentence which favor to those students exposes using RSELC. The results obtained were consistent with the other researches which examine the effectiveness using CALL in language learning such as Al-Mansour and Al-Shorman (2011), Abu Naba (2012), Hussain, et al, (2010), Arikan and Taraf (2010) and Torlakovic and Deugo, (2004),

The findings of this study also showed that the RSELC features were useful for the students in understanding the components of a sentence. The courseware provides a real life situation for the students to use grammar rules in real world activities The RSELC engaged the learners interactively because they can hear, write, pronounce words, and match them to images, and then review of exercises helps them to learn in long-term memory. In this study, students who used the language courseware were able to manipulate the answers in order to understand the content. Immediate feedback from the courseware gives them an opportunity to interaction more effectively based on the lesson objectives. The computer displayed their mistake and this would help students to correct them by considering time doing them. This is an important element because every individual was capable to construct his/her own knowledge by interacting with the tasks without spending too much time and fear of failing (Greany, 2007). By our observation during the experiment, the students in the experimental group were more independent from their teacher and they more centered in interacting with the learning environment. Students in this groups seems to focus practicing using the multimedia language courseware by integrating words, sound, and pictures rich to meaningful learning. In fact, they were able to further practice to achieve authentic learning based on their needs, interests, and chances to choose different type of activities. The language courseware changes the process of learning and shifts it to less boring and more attractive comparing with the mere text book.

7. Conclusions

The results obtained from this study indicate that RSELC as a multimedia courseware played important role in students' learning. The RSELC features were useful for the students in understanding the components of a sentence. The RSELC provided like real life learning environment for the students to use grammar rule in real world activities. English language teachers need to consider their students' needs and interests to design every activity to foster all individuals' challenge in the grammar task with their own pace (Wang, 2001 & Somekh, 2008). There is a need to involve more students in the courseware for longer time to find better instructional context and explore the possible weaknesses and strengths points of using the courseware in the English course.

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